

**Abstract**

5

10

A method for operating one or more electrolysis cells (43, 154, 243) for production of aluminium, the cell comprising inert or substantially inert anodes, where an oxygen containing gas (21, 126, 221) evolved by the electrolysis process in the cell is gathered and removed therefrom. The oxygen containing gas is introduced into a combustion chamber (38, 149, 238) where it is reacted with a carbon containing gas (7, 116, 209) in a combustion process. Emissions of CO<sub>2</sub> and NO<sub>x</sub> can be reduced.